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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WONG, BLANCHE

ART UNIT	PAPER NUMBER
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2619

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/615,260	Applicant(s) BOUDREAUX ET AL.	
	Examiner Blanche Wong	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-12 and 14-18 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-9, 13, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed May 12, 2008 have been fully considered but they are not persuasive.

With regard to claims 1,3,4,9,19, rejected under 102(e), Applicant states that "Tester does not recite the monitoring of a primary call server" and "Tester does not recite operations of a signaling "gateway for a cellular network" (Remarks, p.8, para. 5). However, Examiner respectfully disagrees.

2. If Applicant is arguing a primary call server with a backup call server, such a limitation is not found in the claim language.

3. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a primary call server with a backup call server) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

4. If Applicant is arguing a gateway for a cellular network, such a limitation is not found in the claim language.

5. In response to applicant's arguments, the recitation "a signaling gateway for a cellular network" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where

Art Unit: 2619

the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Claim Objections

6. Claims 1,4,7 are objected to because of the following informalities:

With regard to claim 1, Examiner suggests removing "may have" in line 6 to make definite the claim language. "May have" is to have and not to have.

With regard to claim 4, Examiner suggests replacing "a plurality of signaling gateways" in lines 1-2 with "the plurality of signaling gateways" in consistent with "a plurality of signaling gateways" in claim 1, line 5.

With regard to claim 4, Examiner suggests replacing "operable to distribute signaling messages" in lines 2-3 with "operable to forward signaling messages" in consistent with "forwarding signaling messages from a signaling gateway" in lines 4-5.

With regard to claim 7, Examiner suggests removing "from what it would" in line 2 to make definite the claim language. "from what it would" infers what it seems to be, but not what it actually is.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 2619

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. **Claim 3** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 3, it is unclear whether "a new destination address" in line 2 is "a new destination address of the backup call server".

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. **Claims 1,3,4,9 and 19** are rejected under 35 U.S.C. 102(e) as being anticipated by Tester et al. (U.S. Pat No. 7,286,545).

With regard to claim 1, Tester discloses

monitoring **(upon failure)** ("**Upon failure, gateway controller C is reallocated to call server C**", col. 5, lines 55-56) **(to determine whether there is a failure, there is a monitor of such failure or the transition from active to inactive)** a primary call

Art Unit: 2619

server **(in the exemplary situation, col. 5, line 50, call server B is active, i.e. before it fails and thus inactive)** to determine an active or inactive state **(upon failure)** of said primary call server **(call server B) (when call server B fails, col. 5, line 51);** and upon receipt of an inactive state for said primary call server **(upon failure)** **(“Upon failure, gateway controller C is reallocated to call server C”, col. 5, lines 55-56),** forwarding signaling messages **(flow-related information, instructions on interconnecting)** **(“The primary responsibilities of call servers 12 are to make decisions based on flow-related information and to provide instructions on interconnecting endpoints 18”, col. 4, lines 12-15)** from a signaling gateway **(gateway controller C)** of a plurality of signaling gateways **(see GWC A-D in Fig. 1)** to a backup call server **(call server C)** **(“Upon failure, gateway controller C is reallocated to call server C”, col. 5, lines 55-56)** wherein each of the signaling gateway is associated with a different backup call server **(see CS A-C in Fig. 1).**

With regard to claim 3, Tester further discloses mapping a new destination address from the signaling gateway to the backup call server **(allow for the specification of a selected gateway controller, col. 6, line 31).**

With regard to claim 4, Tester further discloses a plurality of signaling gateways **(see multiple gateway controllers in Fig. 1 or 2)** each distributes signaling messages destined for the primary call server **(see multiple call servers in Fig. 1 or 2)** to a plurality of backup call servers.

With regard to claim 9, Tester further discloses the primary call server also functions as a backup call server and the backup call server also functions as a primary call server **(e.g. when call server B fails, call server C is backup, col. 5, lines 55-56; when call server C fails, call server B can be the backup).**

With regard to claim 19, Tester discloses
a processor **(CPU, col. 8, line 45);**
a memory **(memory, col. 8, line 45)** for storing computer instructions **(software, col. 8, line 45)** that define the operational logic **(establish rules and logic for operation, col. 8, line 55)** of the signaling gateway **(gateway controllers in Fig. 1 or 2)**, wherein the computer instructions include logic for:

receiving call signaling messages from one of the HLR or an initiating MSC
(media gateways in Fig. 1 or 2);

determining whether the destination switching element **(gateway controller or call server)** is in an inactive state **(fails) (when a gateway controller or call server fails, col. 8, lines 62-63);**

if the destination switching element is in an inactive state **(fails)**, determining a first backup **(reconfiguration and provisioning)** switching element **(backup gateway controller or call server)** **(support dynamic reconfiguration and provisioning when a gateway controller or call server fails, col. 8, lines 61-63);** and

transparently (**automatically, col. 8, line 61**) forwarding the call signaling messages to the first backup switching element (**backup gateway controller or call server**).

Claim Rejections - 35 USC § 103

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. **Claims 2,5,7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tester.

With regard to claim 2, Tester discloses the method of claim 1.

Official notice is taken that the limitation "encapsulating the signaling message in a data packet with the destination address of the backup call server" especially in packet networks and where there is a chosen new destination, in this case, the backup call server, is well-known.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include "encapsulating the signaling message in a data packet with the destination address of the backup call server" in Tester in order to re-route the signaling message after the primary call server becomes inactive.

With regard to claim 5, Tester discloses the method of claim 1.

Official notice is taken that the limitation “determining the primary call server has transitioned from inactive state to the active state from the inactive state and subsequently thereto, forwarding signaling messages to the primary call server” is well-known.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include “determining the primary call server has transitioned from inactive state to the active state from the inactive state and subsequently thereto, forwarding signaling messages to the primary call server” in Tester in order to provide for a backup that is only temporary and when the original element becomes active again, whether resumes from failure, the original processes continues via the original element.

With regard to claim 7, Tester discloses the method of claim 1.

Official notice is taken that the limitation “the primary call server is provisioned to process different signaling messages prior to transitioning to the inactive state” is well-known.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include “the primary call server is provisioned to process different signaling messages prior to transitioning to the inactive state” in Tester in order to provide for a seamless transition.

Art Unit: 2619

13. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Tester in view of Karaul et al. (Pub No. US 2002/0024943).

With regard to claim 8, Tester discloses the method of claim 1.

Karaul discloses media gateways that are MSCs (**para. [0023]**).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine MSC as taught in Karaul with Tester to provide for wireless communication/networking.

14. **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over Stumpert (U.S. Pat No. 6,947,747) in view of Davidson et al. (U.S. Pat No. 6,408,182).

With regard to claim 13, Stumpert discloses

a G-MSC (**GMSC1 in Fig. 1**) for establishing call connections between originating MSCs (**MSC 1 in Fig. 1**) and destination MSCs (**MSC 2 in Fig. 1**);

a HLR (**HLR in Fig. 1**) for providing location information to the G-MSC (**GMSC1**) as part of the call setup;

wherein the HLR determines a primary MSC to serve as a destination MSC for a call being setup based upon a called party mobile station location (**see MSC addr in HLR in Fig. 1**);

wherein the HLR transmits call signaling messages (**see arrow 16 in Fig. 1**) to the at least one signaling gateway (**SigGW 1 in Fig. 1**); and

Stumpert does not disclose a backup G-MSC upon detecting that the G-MSC is in an inactive state.

Davidson discloses a backup MSC that is connected to the HLR (**see two MSCs to HLR in Fig. 2**).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a backup G-MSC to provide for failover operation. Davidson, col. 1, line 45.

Allowable Subject Matter

15. **Claims 10-12 and 14-18** are allowed.

16. Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claim 10, the prior art of record fails to anticipate or make obvious a method for redundant call control comprising: “transmitting call setup signals between a calling party mobile station and a BSC; transmitting call setup signals between the BSC and an originating MSC, between the originating MSC and a gateway-MSC (G-MSC) by way of a first signaling gateway, and between the G-MSC and a HLR, ... by

Art Unit: 2619

way of a second signaling gateway, to determine a destination MSC; transmitting destination MSC information from the HLR to the G-MSC by way of the second signaling gateway; when the destination MSC fails, routing call setup signals received from the G-MSC to a backup MSC and establishing a call connection between the backup MSC and the originating MSC; when the G-MSC fails, routing the call setup signals received for the G-MSC to a backup G-MSC and establishing a call connection between the backup G-MSC and the originating MSC; and establishing a call connection between the calling party mobile station and a called party mobile station using at least one of the backup G-MSC and the backup MSC.”

With regard to claim 14, the prior art of record fails to anticipate or make obvious a cellular network comprising: “a Gateway Mobile Switching Center (G-MSC) for establishing call connections; a Home Location Register (HLR) for providing location information to the G-MSC as a part of call setup; a first signaling gateway within a plurality of signaling gateways coupled between each of a plurality of MSCs and the G-MSC; a second signaling gateway within the plurality of signaling gateways coupled between the G-MSC and the HLR; wherein the HLR identifies a destination MSC for a call being setup based upon a called party mobile station location record maintained in the HLR and transmits call signaling messages to the second signaling gateway; wherein the second signaling gateway redirects the call signaling messages to a first backup G-MSC upon detecting that the G-MSC is in an inactive state; and wherein the

Art Unit: 2619

first signaling gateway redirects the call signaling messages to a second backup G-
MSC upon detecting that the G-MSC is in an inactive state."

Xu et al. (US 2007/0165516) and Feng (US 2007/0109960) discloses a gateway servicing two call servers in order to provide for reliability of a telecommunication network entity and protection against call server failures respectively. Both Xu and Feng also disclose BSS and BSC respectively for mobile communication. Xu discusses different signaling messages while Feng further discloses HLR. However, the effective dates for both Xu and Feng do not make these references good art rejections.

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2619

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Blanche Wong/
Examiner, Art Unit 2619
September 8, 2008

/Edan Orgad/
Supervisory Patent Examiner, Art Unit 2619